

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

1. (Currently amended) A method of reducing the peak-to-average power ratio (PAPR) of a modulated baseband signal, wherein the baseband signal is constituted by a waveform function modulated by information-carrying symbols transmitted in parallel, the method comprising the steps of:

detecting peaks in the modulated baseband signal that exceed a threshold (C), and generating a pulse sequence signal (p[m]) therefrom; and

applying a pulse sequence shaping to filter the pulse sequence signal for generating a peak-cancellation signal (c[m]); wherein the pulse sequence shaping is designed such that its pass-band is limited to a frequency-domain gap between the edge of an information-carrying frequency bandwidth of the modulated baseband signal and an edge of a frequency band for the baseband signal defined by a spectral mask specifying a maximum tolerable out-of-band emission.

2. (Cancelled)

3. (Currently amended) The method of claim 2 Claim 1, including further comprising oversampling of the modulated baseband signal prior to the peak detection detecting step.

4-7. (Cancelled)

8. (Currently amended) The method of claim 4 Claim 1, wherein further comprising subtracting the peak-cancellation signal is subtracted from the modulated baseband signal to produce a reduced-PAPR modulated baseband signal ($\hat{s}'[m]$).

9. (Currently amended) The method of ~~claim 5~~ Claim 3, ~~wherein further comprising subtracting~~ the peak-cancellation signal is subtracted from the modulated baseband signal to produce a reduced-PAPR modulated baseband signal ($\hat{s}'[m]$).

10. (Currently amended) A transmitter comprising:

a baseband signal generator ~~for generating~~ operable to generate a digital baseband signal ($\hat{s}[n]$) from an input data stream;

a digital-to-analogue converter ~~for converting~~ operable to convert the digital baseband signal into an analogue baseband signal ($s[t]$) prior to output by a transmitter stage [TX];

an oversampling filter arranged between the baseband signal generator and digital-to-analogue converter ~~for oversampling~~ operable to oversample the digital baseband signal ~~and thus generating~~ to generate an oversampled digital baseband signal ($\hat{s}[m]$);

a signal divider ~~for splitting~~ operable to split the oversampled digital baseband signal into first and second parts;

a peak detector arranged to receive the first part of the oversampled digital baseband signal as input and ~~configured~~ operable to output a pulse sequence signal ($p[m]$) containing a pulse for each peak in the oversampled digital baseband signal that exceeds a threshold level (C);

a pulse shaping filter ~~for receiving~~ operable to receive the pulse sequence signal and ~~converting~~ convert it into a filtered clipping signal ($c[m]$) ~~having a pass-band limited to a frequency-domain gap between an edge of an information-carrying frequency bandwidth of the modulated baseband signal and an edge of a frequency band for the baseband signal defined by a spectral mask specifying a maximum tolerable out-of-band emission~~; and

a signal combiner ~~for subtracting~~ operable to subtract the filtered clipping signal from the second part of the oversampled digital baseband signal so as to produce a digital baseband signal ($\hat{s}'[m]$) with reduced PAPR ~~which is routed to input into for input to~~ the digital-to-analogue converter ~~for transmission by the transmitter (TX)~~.

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Page 4

11. (Currently amended) The transmitter of eClaim 10, wherein the peak detector is further operable to output pulses of the pulse sequence signal have comprising pulses having a magnitude corresponding to the an amount by which the each peak concerned exceeds the threshold level (C).

12. (Currently amended) The transmitter of eClaim 10, wherein the pulse shaping filter is-a comprises an FIR filter.

13. (Currently amended) The transmitter of eClaim 11, wherein the pulse shaping filter is-a comprises an FIR filter.